National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers

Request for Comment on Proposed Rule
(June 9, 2010)

Introduction:

On June 9, EPA published a proposed rule in the Federal Register (75 FR 31896) which would reduce emissions from boilers located at area sources. This document highlights the specific issues related to the area source boiler rule that EPA is interested in receiving additional comments on. Comment period for rule ends August 3, 2010.

What parts of the proposed rule might be of interest to me or my community?

We invite comments on all issues involved with this proposed rule. Here is a list of some of the key issues and *specific requests for comment* from the Federal Register notice. The specific requests for comment are in bullet form and in italics. Each specific request for comment is followed by a page number showing where it is located in the Federal Register.

Startup, Shutdown, Malfunction Requirements

This proposed rule regulates the emissions of hazardous air pollutants (HAP) from area source boilers during all phases of operation. The proposed rule does not provide exemptions from emissions limits during periods of startup, shutdown, and malfunction (SSM). We have attempted to ensure that we did not incorporate into proposed regulatory language any provisions that are inappropriate, unnecessary, or redundant in the absence of an SSM exemption.

- *Should any additional provisions be added to this proposal related to SSM requirements since it does not provide an exemption?* (75 FR 31901)
- *Are any parts of this proposal related to SSM requirements inappropriate, unnecessary, or redundant?* (75 FR 31901)

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Establishing Emission Limits and Work Practice Requirements

We are asking for comment on several issues related to how we propose to set emission levels for area source boilers. Clean Air Act section 112(c)(3) requires us to list sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the emissions of the 30 urban hazardous air pollutants are subject to regulation. EPA may base standards for area sources on generally available control technology (GACT). Section 112(c)(6) of the CAA requires sources accounting for not less than 90 percent of the aggregate emissions of each of seven specified hazardous air pollutants to be subject to standards based on maximum achievable control technology (MACT). Boiler area sources are listed under CAA section 112(c)(6) based on their emissions of mercury and polycyclic organic matter.

MACT standards must at least meet minimum control levels as defined in the CAA. This level of minimum stringency is called the MACT floor. GACT standards are based on control levels that are commercially available and appropriate for use by the sources in the category. The economic impacts on sources and the technical capabilities of the firms to operate and maintain the emissions control systems are considered in setting GACT standards.

The proposed standards in this rule for existing and new coal-fired boilers are based on MACT for mercury and carbon monoxide (a surrogate pollutant for polycyclic organic matter and other organic pollutants), and on GACT for particulate matter. The proposed standards for existing and new biomass- and oil-fired boilers are based on MACT for carbon monoxide and on GACT for mercury and particulate matter. Different emission standards apply depending on whether the boiler is new, existing, large, or small.

Coal-fired area source boilers represent approximately 4.3 percent of the 1990 section 112(c)(6) emissions inventory for mercury. We currently believe that we need coal-fired area source boilers to meet the 90 percent requirement for mercury in CAA section 112(c)(c)(6) and are proposing to regulate coal-fired boilers under MACT. In contrast, biomass- and oil-fired boilers represent approximately 0.34 percent of the 1990 section 112(c)(6) emissions inventory for mercury. We do not believe that biomass-fired and oil-fired boilers need to be regulated under MACT in order to meet our statutory obligations under CAA section 112(c)(6). We are proposing to regulate biomass-fired and oil-fired types of boilers under GACT to meet the 90 percent requirement for mercury in section 112(c)(3).

- *Should MACT-based mercury emission standards be established for all boilers in the category (i.e., all coal-, biomass-, and oil-fired) even though we believe that only coal-fired boilers are needed to meet the 90 percent requirement for mercury in CAA section 112(c)(3)? (75 FR 31898)*

- *Should MACT-based emission limits for mercury emissions from larger boilers in the category be required if it is concluded that such controls are not necessary to meet obligations under CAA section 112(c)(6)? (75 FR 31910)*

- *Should MACT-based emission limits for mercury from biomass-fired and oil-fired area source boilers be required if comment and further analysis of the inventory demonstrate such regulation is necessary to fulfill the 90 percent requirement under CAA section 112(c)(6) or is otherwise appropriate? (75 FR 31910)*

If we conclude that our obligations under CAA section 112(c)(6) for mercury can be met without establishing MACT-based mercury emission standards for biomass-fired or oil-fired area source boilers, we believe that several requirements of this proposed rule could be considered GACT in that they would provide some control of mercury and other fuel-bound pollutants at existing sources with larger boilers (i.e., optimize combustion, conduct an energy assessment, conduct biennial tune-ups). In contrast, we believe that some methods, practices and techniques that would provide mercury control are not widely used and would be expensive for small businesses, and therefore will not be considered GACT (i.e., fabric filters).

- *Do the measures discussed in this preamble to reduce fuel consumption in connection with polycyclic organic matter control and control of urban metal HAP and organic urban HAP represent GACT for mercury emitted from biomass-fired and oil-fired area source boilers?* (75 FR 31908)

The test methods for measuring mercury, carbon monoxide, and particulate matter are reliable and relatively inexpensive but are not applicable for sampling small diameter (less than 12 inches) stacks. Many existing area source boilers have stacks with diameters less than 12 inches. The stack diameter is generally related to the size of the boiler. Boilers that have a capacity below 10 million British thermal units per hour (MMBtu/h) generally have stacks with diameters less than 12 inches. When it is not feasible to establish an enforceable emission standard, CAA section 112(h) allows us to instead require units subject to a MACT standard to comply with a work practice. Under the proposed rule, existing area source boilers that have a heat input capacity of less than 10 million MMBtu per hour are not subject to an emission limit but are required to perform a biennial tune-up. We believe this is justified because it is not practical or economically feasible to require testing and monitoring of these existing boilers with small diameter stacks.

- *Does a threshold higher than 10 MMBtu/h meet the technical and economic limitations as specified in CAA section 112(h)?* (75 FR 31906)

We are not proposing a work practice for new area source boilers. New facilities, as opposed to existing facilities, have the added flexibility of including compliance costs into their design and planning. This includes the design and cost to provide a stack that is adequate for the test methods for mercury, carbon monoxide, and particulate matter.

- *Is it technically infeasible to design sampling ports adequate for EPA test methods 29, 10, and 5 in boilers that are below a certain size?* (75 FR 31909)

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Beyond-the-Floor Determination for Mercury and Polycyclic Organic Matter

This proposal requires all existing area source facilities with a boiler that has a capacity equal to or greater than 10 MMBtu/h to conduct a one-time energy assessment on the boiler's energy consuming systems to identify cost-effective energy conservation measures. We define a cost-effective energy conservation measure to be any measure that has a payback (return of investment) period of 2 years or less. The energy assessment will be conducted by energy professionals and/or engineers that have expertise that cover all energy using systems, processes, and equipment. The proposal does not require implementation of cost-effective measures identified during the energy assessment.

- *Is it economically feasible to require all existing area source facilities with a boiler that has a capacity equal to or greater than 10 MMBtu/h to implement cost-effective measures?* (75 FR 31907)
- *Are our estimates of the assessment costs correct?* (75 FR 31907)
- *Is there adequate access to certified assessors?* (75 FR 31907)
- *Are there other organizations for certifying energy engineers besides the Department of Energy's Qualified Specialist Program or the Association of Energy Engineers' Certified Energy Manager Program?* (75 FR 31907)
- *Are online tools adequate to inform the facility's decision to make efficiency upgrades?* (75 FR 31907)
- *Is the definition of "cost-effective" appropriate in this context since it refers to payback of energy saving investments without regard to the impact on HAP reduction?* (75 FR 31908)
- *What rate of return should be used?* (75 FR 31908)

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Electronic Reporting

In this proposed rule, we are taking steps to improve data accessibility for stack tests (and in the future continuous monitoring data). Boiler area sources will be required to submit to WebFIRE (an EPA electronic database) an electronic copy of stack test reports as well as process data. Data entry requires only access to the Internet and is expected to be completed by the stack testing company as part of the work that it is contracted to perform. We believe electronic reporting will result in a reduced burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and EPA (in terms of preparing and distributing data collection requests).

- *We specifically request comment on the usefulness of this electronic reporting requirement and the burden that owners and operators of boiler area source facilities estimate would be associated with this requirement.* (75 FR 31903)

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Statutory and Executive Order Reviews

This proposed rule may have federalism implications under Executive Order 13132, because it may impose substantial direct compliance costs on State or local governments, and the Federal government will not provide the funds necessary to pay those costs. We estimate that approximately $416 million in annual direct compliance costs may be imposed on an estimated 57,000 State or local governments. As required by the Executive Order, we consulted with State and local officials in the process of developing the proposed action to provide general background on the proposal, answer questions, and solicit input.

- *We specifically request comment on this proposed rule from State and local officials.* (75 FR 31922)

This proposed rule does not have tribal implications, as specified in Executive Order 13175. We do not know of any industrial, commercial, or institutional boilers owned or operated by Indian tribal governments. However, if there are any, the effect of the proposed rule on communities of tribal governments would not be unique or disproportionate to the effect on other communities.

- *We specifically invite tribal officials to provide comment on this proposed rule.* (75 FR 31923)

The environmental health risks or safety risks addressed by this action do not present a disproportionate risk to children, as specified in Executive Order 13045. The proposed rule is based solely on technology performance.

- *We invite the public to submit comments or identify peer reviewed studies and data that assess effects of early life exposure to this proposed rule.* (75 FR 31923)

According to Section 12(d) of the National Technology Transfer and Advancement Act of 1995, we need to use voluntary consensus standards (VCS) in our regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. We did not identify any voluntary consensus standards to use as alternative test methods in place of any required testing methods, performance specifications, or procedures in this proposed rule.

- *We are asking for comments on this aspect of the proposed rulemaking. We specifically ask the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.* (75 FR 31923)

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